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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,930	09/11/2003	Wayne E. Cornish	ACS 65357 (1512XCC)	5064

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FULWIDER PATTON LEE & UTECHT, LLP
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EXAMINER

APANIUS, MICHAEL

ART UNIT	PAPER NUMBER
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3736

MAIL DATE	DELIVERY MODE
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06/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/659,930	Applicant(s) CORNISH ET AL.	
	Examiner Michael Apanius	Art Unit 3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 64-84 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 64-84 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/28/2008 has been entered. The amendments to claims 64, 71 and 78, the amendments to the specification, and the terminal disclaimer are acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 64-70 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith (US 4,808,186). Smith discloses an intracorporeal device (58) comprising an elongated member having a longitudinal length (between the upper horizontal dashed line and the lower horizontal dashed line of figure 7) and means for causing a substantially linear change in bending stiffness (see plot of the relative flexibility of CO-CR-MO SOLID) over the entire longitudinal length of the elongated member. The plot of the bending

stiffness is not perfectly linear; however, it is **substantially** linear as claimed. The length of the elongated member has a continuously changing taper angle producing a curvilinear profile (see outer profile of 58). The elongated member has at least 3 tapered segments (32, 42, 44). Tapered segment (32) has a substantially constant taper angle. The elongated member comprises a material with changing hardness (due to the varying dimensions of the elongated member along its length) in a longitudinal direction. The elongated member tapers distally to a more flexible distal portion.

4. Claims 71-74, 76-81, 83 and 84 are rejected under 35 U.S.C. 102(b) as being anticipated by Amplatz et al. (US 4,991,602).

5. Amplatz discloses a guidewire comprising an elongated core member with at least one longitudinal section (12) having a tapering diameter defined substantially by the formula set forth in claim 71. Even though Amplatz may not expressly disclose the formula set forth in claim 71, the guidewire of Amplatz is sufficient to read on the claim. It is respectfully noted that the claim only requires that the diameter be defined by the formula for a single value of length L. Since C is a constant that depends on the boundary conditions of the longitudinal section, C can arbitrarily be defined so that the formula will be true for at least one point at a distance of L from a starting position of any taper. Therefore, the longitudinal section of Amplatz has a tapering diameter defined substantially by the formula set forth in claim 71 for one value of L. Similarly, the longitudinal section has a moment of inertia defined substantially by the formula set forth in claim 78 for one value of L.

Art Unit: 3736

6. In regards to claims 72 and 79, the core member is formed of Nitinol (column 2, lines 30-32). In regards to claims 73, 74, 80 and 81, the core member may be coated with a lubricious coating (column 5, lines 15-25). In regards to claims 76, 77, 83 and 84, the guidewire comprises at least 6 tapered segments (12, 22, 24 on each end of the guidewire).

7. Claims 71, 72, 75-79 and 82-84 are rejected under 35 U.S.C. 102(b) as being anticipated by Urick (US 5,497,786).

8. Urick discloses a guidewire comprising an elongated core member having a having at least one longitudinal section (12, 14, 16, 18) having diameter. Even though Urick may not expressly disclose the formula set forth in claim 71, the guidewire of Urick is sufficient to read on the claim. It is respectfully noted that the claim only requires that the diameter be defined by the formula for a single value of length L . Since C is a constant that depends on the boundary conditions of the longitudinal section, C can arbitrarily be defined so that the formula will be true for at least one point at a distance of L from a starting position of any taper. Therefore, the longitudinal section of Urick has a tapering diameter defined substantially by the formula set forth in claim 71 for one value of L . Similarly, the longitudinal section has a moment of inertia defined substantially by the formula set forth in claim 78 for one value of L .

9. In regards to claims 72 and 79, the core member is formed of stainless steel (column 2, lines 44-49). In regards to claims 75 and 82, a flexible body (26) is disposed about and secured to a distal core section. In regards to claims 76, 77, 83 and 84, the

guidewire comprises at least 5 tapered segments (12, 14, 16 and 18 as shown in figure 1 and on each side of 19 as shown in figure 3).

Terminal Disclaimer

10. The terminal disclaimer filed on 3/28/2008 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US 6,673,025 and any patent granted on application number 10/631,275 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Response to Arguments

11. Applicant's arguments with respect to amended claims 71 and 78 have been fully considered but they are not persuasive. In particular, it is noted that the claim requires that a tapering diameter or moment of inertia be defined by the formula for only one value of L rather than a range of values for L. Since the formula includes a constant C that depends on the boundary conditions of the longitudinal section, a C may always be determined so that the diameter or moment of inertia at one point on the longitudinal section may be defined by the formula. Therefore, the structures disclosed by Amplatz and Urick are sufficient to read on claims 71 and 78 even though neither reference expressly discloses the formulas of claims 71 and 78.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Apanius whose telephone number is (571)272-5537. The examiner can normally be reached on Mon-Fri 9am-5:30pm.

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. A./
Examiner, Art Unit 3736

/Max Hindenburg/
Supervisory Patent Examiner, Art Unit 3736